

## ABSTRACT OF DISCLOSURE

1                   A host system is provided with one or more host-fabric adapters installed therein for  
2 connecting to a switched fabric of a data network. The host-fabric adapter may comprise at least  
3 one Micro-Engine (ME) arranged to establish connections and support data transfers via a  
4 switched fabric; a serial interface arranged to receive and transmit data packets from the switched  
5 fabric for data transfers; a host interface arranged to receive and transmit host data transfer  
6 requests, in the form of descriptors, from the host system for data transfers; a context memory  
7 having a bandwidth-optimized, area minimal vertically sliced memory architecture arranged to  
8 provide context information necessary for data transfers; and a doorbell manager arranged to  
9 update the context information needed for the Micro-Engine (ME) to process host data transfer  
10 requests for data transfers.

11